



Emergency Services Training

“Aircraft Egress”



Gwinnett County Composite Squadron GA-112

References

Much of this information was referenced from the Civil Air Patrols “Operational Mission Inflight Guide” publication.

Introduction

- An egress simulation drill was held on an aircraft returning from a mission on the June 11th training day held at Gwinnett.
- The aircrew was not told of this activity
- The intent was to document the reaction of the crew and to use the obtained data to assist in the creation of a more formal training program
- It is hoped the outcome of this program will provide all aircrews will a realization on the importance of a good preflight briefing and follow up egress training.

Video

- Drill

Observations

- The aircrew on the simulated fire was surprised and took 17 seconds to react after engine shutdown
- On egress, only the scanner ran away from the aircraft
- Scanner did not take custody of the survival kit
- Mission pilot did not perform a headcount once everyone was away from the aircraft
- Aircrew did not de-brief on the drill
- Mission base personal did not formally de-brief the aircrew on the drill

Concerns

- No official active program for Egress and Survival training is present
- Gwinnett aircrews may not be pre-briefed on their duties in the event of an eminent off field landing
- Survival equipment on many of the aircraft ranges from inadequate to non existent
- The presence of the survival equipment on board the aircraft was unknown by the aircrews questioned.
- This equipment was inaccessible to the crew in flight
- Huge assumptions are placed on the pilots ability to prepare for emergency egress, and survival afterwards

Training

- The unit should incorporate these drills into all training exercises
- A training program and staff position should be incorporated into the units training cycle
- The aircraft should be made available for routine training of all established emergency procedures
- The mission pilots and mission staff should brief the aircrews on emergency procedures before entering the aircraft, and debrief them after training.

Training

- Make sure all crew members know how to use everything they have, *especially the ELT*
- *Practice signaling our OWN aircraft using what you carry on board!*

Emergency Ground Egress

- Prior preparation is important. Follow the checklist to prop open doors, tighten seat and shoulder belts, secure cargo, and turn off the electricity and fuel.
- If doors jam, kick them open or kick out the windows.
- If you can't move from the front seats to the rear, agree on who does what and in what sequence.
- Discuss what to do if one or more of the crew is incapacitated.

Emergency Egress, Pilot

“Time Permitting”

● Inflight:

- Pilot Commands: Prop open doors, secure cargo, tighten seat and shoulder belts, and turn off the electricity and fuel, take custody of survival kit and escape tools, prepare face protection cushions

● After Landing:

- Pilot Commands: “EGRESS, EGRESS, EGRESS!” and shuts down aircraft
- If possible, pilot opens left door and pulls seat forward thus allowing the scanner to exit, if not, improvising will be needed.
- Pilot is to insure all occupants are out of the aircraft
- If Necessary: Pilot uses the escape tools to provide a route of egress from the aircraft
- Pilot will egress the aircraft and will run to a location 300’ from the nose of the aircraft and join the other crewmembers

Emergency Egress, Observer

“Time Permitting”

● Inflight:

- Observer receives the makeshift face protection cushions from the Scanner and prepares to insert them for both themselves and the pilot before impact

● After Landing:

- If necessary, Observer opens right door pulls seat forward thus allowing the scanner to exit (out right side), if not, improvising will be needed.
- If Necessary: Observer uses the escape tools to provide a route of egress from the aircraft
- Observer retrieves fire extinguisher (if required)
- Observer will run to a location 300' from the nose of the aircraft and join other crewmembers
- Insure all crewmembers have been removed from the aircraft

Emergency Egress, Scanner

“Time Permitting”

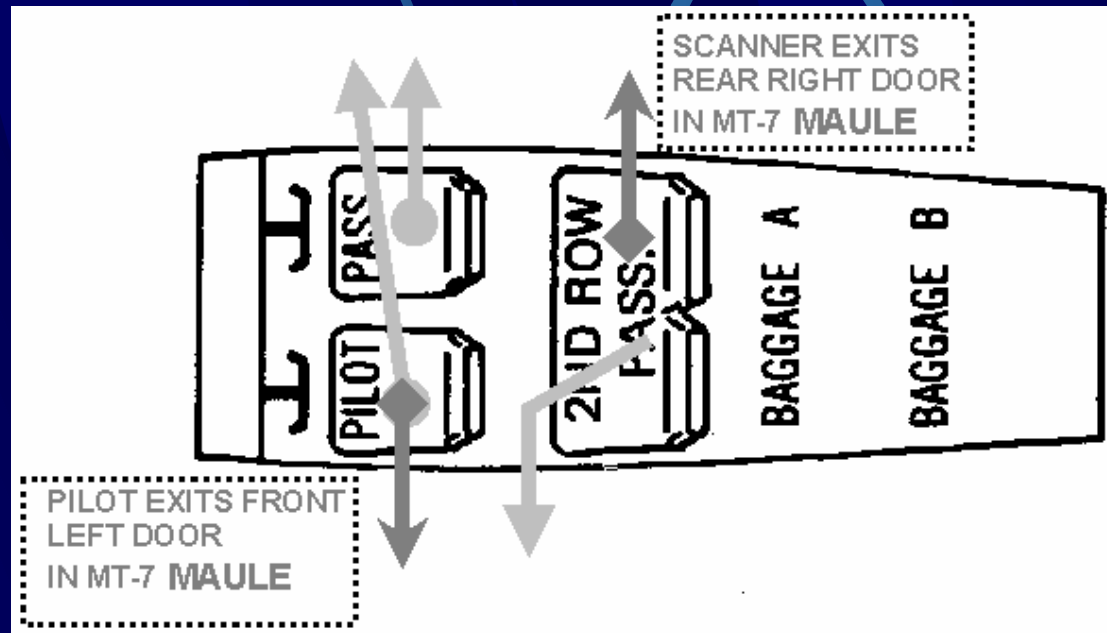
● Inflight:

- Scanner takes Custody of the Survival Kit and escape tools
- Scanner provides front seat passengers with makeshift cushions for face protection
- Scanner prepares the escape tools necessary to forcibly egress the aircraft if needed

● After Landing:

- Scanner egresses the aircraft with survival kit
- If Necessary: Scanner uses the escape tools to provide a route of egress from the aircraft
- Scanner will run to a location 300' from the nose of the aircraft and join other crewmembers
- Insure all crewmembers have been removed from the aircraft

Undamaged Egress Routes



Overcoming Damaged Egress Routes

- An escape tool is necessary for breaking / cutting Plexiglas, jammed seatbelts, or aluminum to enable personnel to escape from a damaged aircraft
- It should always be available for quick retrieval
- It should be comprised of handle and enlarged head with a pointed striking tip
- The handle is ridged to provide a grip and be long enough to provide adequate leverage if needed
- It has a chisel-end to assist as a levering tool
- And is formed to assist in the removal of damaged obstructions.
- The whole tool is of made steel or of a material of like mass.

Literature, Air Force Survival Guide

- This guide should be included into all aircraft and personal survival kits
- All aircrew members should be familiar with its existence and content
- Like the survival kit and egress tool, familiarity with it may someday save yours, or some else's life
- http://www.equipped.com/multiservice_ser_manual_1999.pdf

Post-Crash Actions

- Get clear of the aircraft if there is any danger of fire or having it fall on you.
- Check everyone for injuries and apply first aid.
- Try your cell phone or radio. Activate the ELT.
- Make yourself BIG and VISIBLE.
- Stay with the aircraft if in a remote area - an aircraft can be found, but it's easy to miss a survivor.
- Finally, your survival kit and escape tools increase your chances of survival; know them well

Remember...

A little planning and a few pieces of equipment could be the difference between life and death! Prepare for the area and conditions you will be operating in and update your survival kit seasonally. Finally, remember your most important tool is your **WILL TO SURVIVE!**

Checklist, Egress

Checklist, Egress from the Aircraft

PILOT

- Brief crewmembers on egress procedures and responsibilities
- Inspect the seal on the aircraft's survival equipment
- Approve all personal survival kits (size, weight & balance)

OBSERVER SCANNER

- Become familiar with all door, window and seatbelt locking devices
- Become familiar with the location of the aircraft's survival equipment

Emergency Egress, Pilot "Time Permitting"

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Discussion